

I CLAIM:

1. An electrical connector for use in connecting a conductor to an electrically conductive structure, the connector comprising:

a clamp for mechanically and electrically securing the connector to the electrically conductive structure;

a first conductive layer;

a second conductive layer; and

a fastener securing the first layer and the second layer to the clamp such that the conductor can be captured between the first layer and the second layer; and

the first layer and the second layer being made of conductive material with same or generally similar galvanic potentials as the material of the conductor.

2. An electrical connector in accordance with claim 1 wherein the clamp comprises a bendable strap and at least a portion of the strap provides a third conductive layer such that the second layer and the third layer are in electrical contact with one another when the connector is attached to the electrically conductive structure and a conductor is captured between the first layer and the second layer.

3. An electrical connector in accordance with claim 2 further comprising a clip having at least one flange located to substantially prevent rotation of the clip relative to the bendable strap and the clip providing the first conductive layer.

4. An electrical connector in accordance with claim 3 further comprising a shim having at least one stop located to substantially prevent rotation of the shim relative to the bendable strap and the shim providing the second conductive layer.

5. An electrical connector in accordance with claim 4 further comprising a threaded member defining a threaded bore for receiving the fastener, the clip defines a second bore for receiving the fastener, the shim defines a third bore for receiving the fastener and the strap defines a fourth bore for receiving the fastener, and wherein the fastener is positioned within the threaded bore, the second bore, the third bore and the fourth bore.

6. An electrical connector in accordance with claim 5 wherein the threaded member includes a hook and the end of the bendable strap defines a fifth bore positioned to received the hook such that the hook extends through the bendable strap with the threaded bore on one side of the bendable strap and the hook on an opposite side of the bendable.

7. An electrical connector in accordance with claim 6 wherein the shim surrounds at least a portion of the hook.

8. An electrical connector in accordance with claim 7 wherein the bendable strap defines a hook aperture positioned to receive the hook when the bendable strap is wrapped around the electrically conductive structure.

9. An electrical connector in accordance with claim 8 wherein the first layer and the second layer comprise copper.

10. An electrical connector in accordance with claim 8 wherein the first layer and the second layer comprise brass.

11. An electrical connector for connecting a conductor to an electrically conductive structure, the connector comprising:

a clamp securing the connector to the electrically conductive structure;

a first electrically conductive layer;

a second electrically conductive layer;

a third electrically conductive layer; and

a fastener securing the first layer, second layer, and third layer together and to the clamp;

wherein a conductor can be captured between the first layer and second layer, the first layer and second layer being made of metals with the same or similar galvanic potentials as the material of the conductor.

12. An electrical connector in accordance with Claim 11 wherein the third layer includes the clamp securing the connector to the electrically conductive structure.

13. An electrical connector in accordance with Claim 11 wherein the first layer and the second layer comprise copper.

14. An electrical connector in accordance with Claim 11 wherein the first layer and the second layer comprise brass.

15. An electrical connector in accordance with Claim 11 wherein the conductor comprises copper, the first layer and the second layer comprise copper, and the third layer comprises galvanized steel.

16. An electrical connector in accordance with Claim 11 wherein the conductor comprises copper, the first layer and the second layer comprise brass, and the third layer comprises galvanized steel.

17. An electrical connector in accordance with Claim 11 wherein the first layer is a grounding clip, the second layer is a grounding shim, and the third layer is a bendable strap.

18. An electrical connector in accordance with Claim 11 wherein the first layer is a grounding clip, the second layer is a grounding shim, and the third layer is a clamp.

19. An electrical connector assembly for connecting a conductor to an electrically conductive structure comprising:

a bendable strap;

a grounding clip;

a grounding shim; and

a fastener securing the grounding clip and the grounding shim to the bendable strap.

20. An electrical connector in accordance with Claim 19 wherein the grounding clip and the grounding shim are made of materials with the same or similar galvanic potentials as the conductor.

21. An electrical connector in accordance with Claim 20 wherein the grounding clip includes at least one flange located to substantially prevent the rotation of the clip relative to the bendable strap.

22. An electrical connector in accordance with Claim 21 wherein the at least one flange is positioned adjacent a side of the bendable strap.

23. An electrical connector in accordance with Claim 21 wherein the at least one flange comprises a first flange and a second flange opposite the first flange, the first flange and second flange being downwardly oriented.

24. An electrical connector in accordance with Claim 21 wherein grounding clip includes at least one upwardly oriented flange located to facilitate the insertion of the conductor between the grounding clip and the grounding shim.

25. An electrical connector in accordance with Claim 24 wherein the at least one upwardly oriented flange comprises a first upwardly oriented flange and a second upwardly oriented flange located opposite the first upwardly oriented flange.

26. An electrical connector in accordance with Claim 20 wherein the grounding clip defines a bore for receiving the fastener.

27. An electrical connector in accordance with Claim 20 wherein the grounding shim is disposed adjacent a first surface of the bendable strap and the connector further comprises a threaded member having a body disposed adjacent a second surface of the bendable strap opposite the first surface.

28. An electrical connector in accordance with Claim 27 wherein the threaded member defines a threaded bore for receiving the fastener.

29. An electrical connector in accordance with Claim 28 wherein the grounding clip defines a first bore, the grounding shim defines a second bore, and the bendable strap defines a third bore; wherein the threaded bore is registerable with the first, second, and third bores.

30. An electrical connector in accordance with Claim 29 wherein an end of the bendable strap is bent downward to form a first portion, a second portion, and a third portion; wherein the threaded member is disposed between the first portion and third portion.

31. An electrical connector in accordance with Claim 30 wherein the third portion is formed to mate with the electrically conductive structure.

32. An electrical connector in accordance with Claim 30 wherein the threaded member includes a hook and the second portion of the bendable strap defines an aperture through which the hook extends.

33. An electrical connector in accordance with Claim 32 wherein the hook extends downwardly and outwardly from the body of the threaded member.

34. An electrical connector in accordance with Claim 20 wherein the grounding shim includes a body portion and an end portion and an end of the bendable strap is bent to form a first portion, a second portion, and a third portion; wherein the first portion and the second portion of the bendable strap define a first angle and wherein the body portion and the end portion of the grounding shim define a second angle which corresponds to the first angle.

35. An electrical connector in accordance with Claim 34 wherein the end portion of the grounding shim defines an aperture through which the hook of the threaded member extends.

36. An electrical connector in accordance with Claim 34 wherein the body portion of the grounding shim defines a bore for receiving the fastener.

37. An electrical connector in accordance with Claim 20 wherein the connector further comprises a nut secured to the fastener, the nut located between a head of the fastener and the ground clip.

38. A method for grounding a conductor comprising:

providing an electrical connector with a first layer, a second layer, and a third layer, wherein the first layer and second layer are formed from metals with the same or similar galvanic potentials as the material of the conductor;

fastening the first layer, second layer, and third layer together with a fastener;

inserting a conductor between the first layer and the second layer;

clamping the conductor between the first layer and the second layer such that unintentional removal is prohibited; and

securing the third layer to a electrically conductive structure.

39. A method according to Claim 38 wherein the fastener includes a nut and the conductor is secured between the first layer and second layer by tightening a nut adjacent the first layer.